WHAT IS CLAIMED IS:

1. A device for ablating tissue, comprising:

an ablating device having at least one ablating element and a bottom surface, the bottom surface being positioned adjacent to tissue to be ablated; and

a cover extending over the bottom surface;

a cavity defined by a space between the cover and bottom surface; and

a flowable material positioned in the cavity;

wherein the cover is movable relative to the ablating device to a position which exposes the bottom surface while leaving the flowable material positioned between the ablating device and the tissue to be ablated.

2. The device of claim 1, wherein:

the ablating device has a removable tip.

3. The device of claim 1, wherein:

the flowable material has a boiling temperature of at least 100 degrees C and a vapor pressure higher than water.

4. The device of claim 1, wherein:

the flowable material is selected from the group consisting of PEG and glycerine.

5. The device of claim 1, wherein:

the ablating device has a plurality of ablating elements.

6. The device of claim 1, wherein:

the ablating device forms a closed loop.

7. The device of claim 1, wherein:

the cover is a sleeve which surrounds the ablating device.

8. A method of ablating tissue, comprising the steps of:

providing an ablating device and a cover, the ablating device having a bottom surface, the cover being spaced apart from the bottom surface to define a fluid cavity, the fluid cavity containing a fluid;

positioning the cover against a tissue surface;

moving the cover away from the bottom surface so that the bottom surface is exposed and positioned adjacent the tissue surface, the flowable material conforming to the shape of the tissue surface and being positioned between the bottom surface of the ablating device and the tissue surface; and

ablating the tissue after the moving step.

9. The method of claim 8, wherein:

the positioning step is carried out with the tissue surface being an epicardial surface.

10. The method of claim 8, wherein:

the moving step is carried out by moving the cover while substantially maintaining the position of the ablating device.

11. The method of claim 8, wherein:

the providing step is carried out with the cover having a removable tip.

12. The method of claim 8, wherein:

the providing step is carried out with the flowable material having a boiling temperature of at least 120 degrees C.

13. The method of claim 8, wherein:

the providing step is carried out with the flowable material being selected from the group consisting of PEG and glycerine.

14. The method of claim 8, wherein:

the providing step is carried out with the ablating device having a plurality of ablating elements.

15. The method of claim 8, wherein:

the providing and moving steps are carried out with the ablating device forming a closed loop.

16. The method of claim 15, wherein:

the providing and moving steps are carried out with the ablating device forming a closed loop around the pulmonary veins; and

the ablating step is carried out to form an ablation around the pulmonary veins.

17. A device for ablating tissue, comprising:

a body having a first part and a second part which are coupled together to form a closed loop and separated to open the closed loop;

at least one ablating element mounted to the body; and

a flexible tip extending from an end of the body, the tip extending for at least two inches and being free of any ablating elements, the flexible tip facilitating advancement of the body through a space between the epicardium and pericardium.

18. The device of claim 17, wherein:

the tip is removable from the body.

19. The device of claim 17, wherein:

the body has a plurality of ablating elements attached thereto.

20. The device of claim 17, wherein:

the ablating device has an ultrasonic transducer.

21. The device of claim 17, wherein:

the body has a convex bottom surface which is positioned adjacent the tissue to be ablated.

22. The device of claim 21, wherein:

a membrane forms the convex surface.

23. The device of claim 22, wherein:

the membrane partially defines a cavity containing a fluid.

24. The device of claim 17, wherein:

the ablating device has a plurality of ablating elements.

25. The device of claim 17, wherein:

the ablating device forms a closed loop around the heart.

26. A system of forming an ablation from an epicardial location, comprising the steps of:

a liquid delivery device for delivering a liquid to a space between the pericardium and epicardium to create a liquid environment around the heart; and

at least one ablating element for ablating tissue when submerged in the liquid environment around the heart.

27. The system of claim 26, wherein:

the ablating element is an element selected from the group consisting of RF, ultrasound, microwave, cryo and laser

28. The system of claim 26, wherein:

the liquid delivery device is delivered through a penetration in the pericardium.

29. A method of ablating tissue from an epicardial location, comprising the steps of:

providing an ablating device having a tip;

advancing the ablating device through a space between the epicardium and pericardium;

removing the tip of the ablating device; and

ablating tissue with the ablating device.

30. The method of claim 29, further comprising the step of:

forming a closed loop with the ablating device after the removing step.

31. The method of claim 29, wherein:

the advancing step is carried out with the ablating device having a plurality of ablating elements.

32. The method of claim 29, wherein:

ablating step is carried out to form an ablation around the pulmonary veins.

33. The method of claim 29, wherein:

the providing step is carried out with the tip having a length of at least two inches and being free of ablating elements.

34. The method of claim 33, wherein:

the providing step is carried out with the tip having a length of at least four inches.

35. A method of forming an ablation from an epicardial location, comprising the steps of:

creating a liquid environment around a patient's heart;

positioning an ablating device against an epicardial location of the patient's heart; and

ablating tissue from the epicardial location while the ablating device is contained within the liquid environment.

36. The method of claim 35, wherein:

the creating step is carried out by at least partially filling the pericardial space with the liquid to create the liquid environment around the patient's heart.

37. The method of claim 35, wherein:

the ablating step is carried out with the ablating device being submerged within the liquid.

38. The method of claim 35, wherein:

the creating step is carried out with the liquid environment being contained by the pericardium.

39. The method of claim 35, wherein:

the ablating step is carried out with the ablating device having an ablating element which uses RF, ultrasound, laser, cold or microwave.

40. The method of claim 35, wherein:

the creating step is carried out with the pericardium being incised to create an opening, the fluid environment having an exposed free surface of the liquid.

41. The method of claim 35, wherein:

the creating step is carried out with the ablating device passing through a penetration in the pericardium.

42. A method of ablating tissue, comprising the steps of:

providing an ablating device having a convex contact surface;

positioning the convex contact surface adjacent to an epicardial surface;

ablating the epicardial tissue after the positioning step.

43. The method of claim 42, wherein:

the providing step is carried out with the ablating device comprising an ultrasonic transducer.

44. The method of claim 43, wherein:

the providing step is carried out with the convex surface being formed by an element mounted to the ultrasonic transducer.

45. The method of claim 44, wherein:

the providing step is carried out with a membrane forming the convex surface.

46. The method of claim 45, wherein:

the providing step is carried out with the membrane partially defining a cavity containing a fluid.

47. The method of claim 42, wherein:

the providing step is carried out with the ablating device having a plurality of ablating elements.

48. The method of claim 42, wherein:

the providing and moving steps are carried out with the ablating device forming a closed loop around the heart.

49. The method of claim 48, wherein:

the providing and moving steps are carried out with the ablating device forming a closed loop around the pulmonary veins; and

the ablating step is carried out to form an ablation around the pulmonary veins.

50. An ablating device for ablating tissue, comprising:

a body;

an ablating element coupled to the body;

a membrane extending over at least part of the ablating element, the membrane being spaced apart from the ablating element to form a fluid cavity; and

the fluid cavity containing a fluid.

51. The ablating device of claim 50, further comprising:

a fluid source coupled to the fluid inlet for circulating the fluid through the fluid cavity.

52. The ablating device of claim 51, further comprising:

a heat exchanger having an inlet which receives the fluid and an outlet which returns the fluid to the fluid cavity.

53. The ablating device of claim 50, wherein:

the membrane forms a convex contact surface.

54. The ablating device of claim 50, wherein:

the membrane forms the convex contact surface with fluid pressure.

55. The ablating device of claim 50, wherein:

the membrane permits some of the fluid to pass therethrough to wet the target tissue with the fluid.

56. The ablating device of claim 50, wherein:

the membrane extends over more than one ablating element.

57. An ablating device for ablating tissue, comprising:

a body;

an ablating element coupled to the body;

a flexible skirt surrounding at least a portion of the ablating element;

the fluid cavity containing a fluid.

58. The ablating device of claim 57, further comprising:

a fluid delivery channel which delivers fluid to the fluid cavity.

59. The ablating device of claim 57, wherein:

the body has a contact surface on a bottom side, the contact surface being convex.

60. A method of ablating tissue from an epicardial location using a device according to claims 51-59.

Add A2

Add B1

Add D1